



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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www.miamidade.gov/economy

Johns Manville Corporation
717 17th Street
Denver, CO 80202

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: JM PVC Single Ply Roof Systems over Steel Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 12-0410.06 and consists of pages 1 through 30.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 12-1113.23
Expiration Date: 12/06/17
Approval Date: 07/03/14
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Steel
Maximum Design Pressure: -75 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|--|---|----------------------------|--|
| JM PVC Membrane | 50 mil x 39" or 78" x 100' 60 mil x 39" or 78" x 100' 80 mil x 39" or 78" x 75' | ASTM D4434 | PVC polyester reinforced membrane. |
| JM PVC Fleece Backed | 50 mil x 76" x 90' 60 mil x 76" x 90' | ASTM D4434 | PVC polyester reinforced membrane backed with a lightweight polyester fleece. |
| DynaFast 180 S | 39-3/8" x 49'2" | ASTM D6164 | A polyester reinforced SBS modified bitumen base or inner ply sheet. |
| JM Two Part Urethane Insulation Adhesive | N/A | Proprietary | A two-part urethane insulation adhesive. |
| JM PVC Membrane Adhesive (Low VOC) | N/A | Proprietary | Low solvent based adhesive. |
| JM PVC Membrane Adhesive (Water Based) | N/A | Proprietary | Water borne adhesive. |
| JM PVC Profile | 1-1/2" wide x 1-1/4" high x 10' long | Proprietary | Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing. |
| JM PVC Spine | 3/4" wide x 13/16" high x 7' long | Proprietary | Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing. |
| JM PVC Penetration Pan | Various | ASTM D4434 | Molded PVC for flashing penetration. |
| JM PVC Pipe Boots | Various | ASTM D4434 | Non-reinforced molded PVC flashing penetrations. |
| JM PVC Universal Corner | Various | ASTM D4434 | Non-reinforced molded PVC for inside and outside corner flashing. |
| JM PVC T-Joint Patch | Various | ASTM D4434 | Non-reinforced PVC used to cover T-joints and fasteners. |
| JM PVC Detail Membrane | Various | ASTM D4434 | Non-reinforced PVC used for pipe and corner flashing. |



NOA No.: 12-1113.23
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| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|----------------------------|--------------------------|-----------------------------------|--|
| JM PVC Detail Strip | Various | ASTM D4434 | PVC used to waterproof joints. |
| JM PVC Coated Metal | Various | ASTM D4434 | JM PVC laminated onto galvanized steel for metal flashings and edge details. |
| JM PVC Walkpad | Various | ASTM D4434 | Textured PVC walk pad. |
| JM PVC Heavy-Duty Walkpad | Various | ASTM D4434 | Textured PVC walk pad |

APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | Manufacturer (With Current NOA) |
|--|---|--|
| Invinsa Roof Board | High-density polyisocyanurate with fiber glass reinforced facers. | Johns Manville |
| Invinsa FR Roof Board | High-density polyisocyanurate with mineral coated glass reinforced facers; bottom face is premium coated for combustible decks. | Johns Manville |
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI | Polyisocyanurate Insulation. | Johns Manville |
| ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm 25 PSI | Polyisocyanurate Insulation with glass reinforced facers. | Johns Manville |
| ENRGY 3 FR | Polyisocyanurate Insulation with inorganic coated glass reinforced facers; bottom face is premium coated for combustible decks. | Johns Manville |
| Fesco Foam | Polyisocyanurate Insulation with perlite facer. | Johns Manville |
| DuraBoard | High-density perlite roof insulation. | Johns Manville |
| JM SECUROCK Gypsum-Fiber Roof Board | Gypsum Fiber Board | Johns Manville |
| Structodek® High Density Fiber Board Roof Insulation | High Density Fiber Board. | Blue Ridge Fiber Board, Inc. |
| DensDeck | Silicon treated gypsum | Georgia Pacific Gypsum, LLC |

APPROVED FASTENERS:

| TABLE 3 | | | | |
|-----------------|---|---|---|---------------------------------|
| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
| 1. | High Load Fasteners | Insulation and membrane fastener for steel, wood, or concrete | #15 x 22" max. #3Phillips hd | Johns Manville |
| 2. | High Load Plates | Membrane seam plate | 2-3/8" round steel plate | Johns Manville |
| 3. | Extra High Load Fastener | Truss head, self-drilling, pinch point, high thread fastener | #21 x 16" max. length | Johns Manville |
| 4. | OMG 2-3/4" Super XHD Barbed Plate | Round galvanized steel stress plates. | 2-3/4" round | OMG |
| 5. | UltraFast Fastener | Insulation Fastener | | Johns Manville |
| 6. | UltraFast 3" Round Metal Plate or UltraFast Square Recessed Metal Plate | Galvalume AZ55 steel plate | 3" round & 3" square | Johns Manville |
| 7. | UltraFast Plastic Plate | Polypropylene round plate | 3" round | Johns Manville |
| 8. | JM PVC RhinoPlate | Membrane bonding plate | 3" round | Johns Manville |
| 9. | High Load LH | fastener for steel, wood, or concrete | #15 x 14" max. Oversize #3Phillips hd | Johns Manville |
| 10. | Polymer Membrane Batten | Membrane anchors | 1" plastic strips | Johns Manville |
| 11. | JM APB Plates | Membrane plates | 2" round steel plate | Johns Manville |

EVIDENCE SUBMITTED:

| <u>Test Agency Name</u> | <u>Identifier</u> | <u>Report</u> | <u>Date</u> |
|---|--------------------------|---|--------------------|
| FM Approvals | 3025245 | FM 4470 | 03/24/08 |
| | 3025168 | FM 4470 | 10/31/07 |
| | 3025170 | FM 4470 | 12/10/07 |
| | 3028040 | FM 4470 | 11/14/07 |
| | 3031670 | FM 4470 | 12/10/07 |
| | 3033308 | FM 4470 | 09/03/08 |
| | 3039813 | FM 4470 | 06/28/10 |
| | 3040105 | FM 4470 | 11/24/10 |
| | 3037540 | FM 4450 | 10/20/10 |
| | 3035538 | FM 4470 | 05/25/10 |
| | 3043824 | FM 4470 | 02/29/12 |
| Momentum Technologies, Inc. | NX21J0A | ASTM D 4434 | 06/01/11 |
| | NX21J0B | ASTM D 4434 | 07/20/11 |
| | NX21J0C | ASTM D 4434 | 06/01/11 |
| PRI Construction Materials Technologies, LLC | JMC-088-02-01 | ASTM D1867/TAS 117 B | 09/06/13 |
| | JMC-107-02-01-R2 | ASTM D5147/D903/D1876 TAS 117(A)/(B)/(C) | 08/19/13 |
| | JMC-108-02-01 | TAS 114(J) | 04/16/13 |
| | JMC-114-02-01 | TAS 114(J) | 08/20/13 |
| | JMC-141-02-01 | TAS 114(J) | 04/18/13 |
| | JMC-168-02-01 | TAS 114(J) | 08/20/13 |
| Trinity ERD | J45020.05.13-1 | TAS 114 | 05/16/13 |
| | J45020.09.13-1-R1 | TAS 114-C | 09/12/13 |

APPROVED ASSEMBLIES

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with two (2) Traxx 5 fasteners spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 24" o.c.

System Type B(1): Base layer of insulation mechanically attached. Top layer of insulation fully adhered with approved asphalt or adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 1.5" thick | 5 with 6 or 7 | 1:1.33 ft² |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.0 -1.10 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps

Option #2: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.0 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)



Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with two (2) Traxx 5 fasteners spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 24" o.c.

System Type B(2): Base layer of insulation mechanically attached. Top layer of insulation fully adhered with approved asphalt or adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 1.5" thick | 5 with 6 or 7 | 1:1.33 ft² |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleeced Back Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.0 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18 - 22 ga. steel
System Type B(3): Base layer of insulation mechanically attached. Top layer of insulation fully adhered with approved asphalt or adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 2" thick | 5 with 6 | 1:4 ft ² |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.0 -1.10 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps

Option #2: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.25 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 - 22 ga. steel

System Type B(4): Base layer of insulation mechanically attached. Top layer of insulation fully adhered with approved asphalt or adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 2" thick | 5 with 6 | 1:4 ft² |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two-Part Urethane Insulation Adhesive, 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleeced Back Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.0 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18 - 22 ga. steel
System Type C(1): One or more layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

All General and System Limitations apply.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | 5 with 6 | 1:2 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., on the substrate with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 - 22 ga. steel

System Type C(2): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Plywood Minimum 19/32" thick | 5 with 6 | 1:2 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane adhered with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

**Maximum Design
Pressure:** -45 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with two (2) Traxx 5 fasteners and 0.75" O.D. washers spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 18" o.c.

System Type C(3): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | 5 with 6 | 1:1.78 ft ² |
| Minimum 1.5" thick | | |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lb./sq. with min. 1.5" heat welded side laps.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 - 22 ga. steel

System Type C(4): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | 5 with 6 | 1:2 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.67 gal./sq., on the substrate with min. 1.5" heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with two (2) Traxx 5 fasteners and 0.75" O.D. washers spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 18" o.c.

System Type C(5): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | 5 with 6 | 1:1.78 ft² |

Note: All layers shall be simultaneously fastened. See Top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 – 22 ga. steel

System Type C(6): One or more layers of insulation simultaneously fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners | Fastener Density/ft² |
|---|---------------------------------------|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5” thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof Board, Invinsa FR Roof Board, DensDeck | | |
| Minimum 0.25” thick | 1 with 8 | 1:5.33 ft² |
| Plywood | | |
| Minimum 19/32” thick | 1 with 8 | 1:5.33 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane is induction welded to JM PVC RhinoPlates. Side lap is sealed with minimum 1.5” wide heat welds offset from plates.

Maximum Design Pressures: -45 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 18" o.c.

System Type C(7): One or more layers of insulation simultaneously fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof Board, Invinsa FR Roof Board, DensDeck | | |
| Minimum 0.25" thick | 1 with 8 | 1:4 ft² |
| Plywood | | |
| Minimum 19/32" thick | 1 with 8 | 1:4 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane is induction welded to JM PVC RhinoPlates. Side lap is sealed with minimum 1.5" wide heat welds offset from plates.

Maximum Design Pressures: -67.5 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 24" o.c.

System Type C(8): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| | | |
|---|---|--|
| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |

| | | |
|--|---|--|
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.25" thick | 5 with 6 | 1:33 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener densit.y. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.0 -1.10 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps.

Or

JM PVC Fleece Back Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.25 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to supports spaced maximum 6 ft. o.c. with Traxx 5 fasteners spaced 6" o.c. maximum and with side laps fastened with Traxx 1 fasteners spaced 24" o.c.

System Type C(9): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.25" thick | 5 with 6 | 1:1 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.0 -1.10 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps.

Or

JM PVC Fleece Back Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.25 gal/sq. and a heat welded seam minimum of 1.5" wide within 6" wide laps.

Maximum Design Pressure: -60 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 – 22 ga. steel

System Type C(10): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5” thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.375” thick | 5 with 6 | 1:2.67 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.0 -1.10 gal/sq. and a heat welded seam minimum of 1.5” wide within 6” wide laps.

Option #2: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.25 gal/sq. and a heat welded seam minimum of 1.5” wide within 6” wide laps.

Option #3: JM PVC Fleece Back Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.25 gal/sq. and a heat welded seam minimum of 1.5” wide within 6” wide laps.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18 – 22 ga. steel

System Type C(11): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5” thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.5” thick | 5 with 6 | 1:4 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.0 -1.10 gal/sq. and a heat welded seam minimum of 1.5” wide within 6” wide laps.

Or

JM PVC Fleece Back Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.83 -1.25 gal/sq. and a heat welded seam minimum of 1.5” wide within 6” wide laps.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20 or 22 ga.,(MSG) .0474, .0358 or .0295 thick, 1.5" deep, meeting ASTM A1008/A1008M-01a or A653/653M-01a SS Grade 80 steel . attached with Tek's 4 or 5 fasteners to supports having a maximum spacing of 6' o.c. Side laps secured with Stitch Tek's 1 fasteners spaced 30" o.c.

System Type D(1): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Invinsa Roof Board, Invinsa Roof Board FR, JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum ¼" thick | N/A | N/A |

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

| | |
|--------------------------|---|
| Membrane: | JM PVC Membrane attached through the preliminary attached insulation as specified below. |
| Fastening #1: | Minimum 60 mil Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 12" o.c. within 5" wide laps, spaced 73" o.c. and sealed with minimum 2" wide heat welds. (Maximum Design Pressure -52.5 psf. See General Limitation #7) |
| Fastening #2: | Minimum 40 mil Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 6" o.c. within 4½" wide laps, spaced 114" o.c. and sealed with minimum 2" wide heat welds. (Maximum Design Pressure -60 psf. See General Limitation #7) |
| Fastening #3: | Minimum 60 mil Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 6" o.c. within 6" wide laps, spaced 72" o.c. and sealed with minimum 2" wide heat welds. (Maximum Design Pressure -75 psf. See General Limitation #7) |
| Maximum Design Pressure: | See fastening above. |

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 ga., steel meeting ASTM A1008/A 1008M-01a or A653/653M-01a SS Grade 33 attached 6" o.c. with Teks 4 or 5 fasteners to supports having a maximum spacing of 6' o.c. Side laps secured with Traxx 1 fasteners spaced 24" o.c.

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |
| DensDeck | | |
| Minimum ½" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| DensDeck | | |
| Minimum ¼" thick | N/A | N/A |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: JM PVC Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Minimum 40 mil Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 6" o.c. within 5.5" wide laps, spaced 114" o.c. and sealed with minimum 2" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Fastening #2: Minimum 40 mil Membrane is mechanically attached using Extra High Load Fasteners and OMG Super XHD 2-¾ Barbed Plates spaced 6" o.c. within 5.5" wide laps, spaced 114" o.c. and sealed with minimum 2" wide heat welds.
(Maximum Design Pressure -60 psf. See General Limitation #7)

Maximum Design Pressure: See fastening above.



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20 or 22 ga.,(MSG) .0474, .0358 or .0295 thick, 1.5" deep, meeting ASTM A1008/A1008M-01a or A653/653M-01a SS Grade 80 steel . attached with Teks 4 or 5 fasteners to supports having a maximum spacing of 6' o.c. Side laps secured with Stitch Teks 1 fasteners spaced 30" o.c.

System Type D(3): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI, Fesco Foam Minimum 1.5" thick | N/A | N/A |
| DuraBoard, Structodek® High Density Fiber Board Roof Insulation, DensDeck Minimum ½" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| DensDeck Minimum ¼" thick | N/A | N/A |

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: JM PVC Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 12" o.c. within 5" wide laps, spaced 73" o.c. and sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Fastening #2: Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 6" o.c. within 5" wide laps, spaced 73" o.c. and sealed with minimum 1-1/2" wide heat welds.
(Maximum Design Pressure -60 psf. See General Limitation #7)

Maximum Design Pressure: See fastening above.

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20 or 22 ga.,(MSG) .0474, .0358 or .0295 thick, 1.5" deep, meeting ASTM A1008/A1008M-01a or A653/653M-01a SS Grade 33 steel . attached with Teks 4 or 5 fasteners to supports having a maximum spacing of 6' o.c. Side laps secured with Stitch Teks 1 fasteners spaced 24" o.c.

System Type D(4): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI, Fesco Foam Minimum 1.5" thick | N/A | N/A |
| Structodek® High Density Fiber Board Roof Insulation, DensDeck Minimum ½" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| DensDeck Minimum ¼" thick | N/A | N/A |

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: JM PVC Membrane attached through the preliminary attached insulation as specified below.
Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 6" o.c. within 5.5" wide laps, spaced 114" o.c. and sealed with minimum 2" wide heat welds.

Maximum Design Pressure: -60 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20 or 22 ga.,(MSG) .0474, .0358 or .0295 thick, 1.5" deep, meeting ASTM A1008/A1008M-01a or A653/653M-01a SS Grade 80 steel , attached 6" o.c. with Tek's 4 or 5 fasteners to supports having a maximum span of 6 ft o.c. Side laps secured with Stitch Tek's 1 fasteners spaced 30" o.c.

System Type D(5): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI , ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Invinsa Roof Board, Invinsa Roof Board FR, JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum ¼" thick | N/A | N/A |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: JM PVC Fleece Backed Membrane attached through the preliminary attached insulation as specified below.

Fastening: Membrane is mechanically attached using High Load Fasteners and High Load Plates spaced 6" o.c. within 4-1/2" wide laps, spaced 114" o.c. and sealed with minimum 2" wide heat welds.

Maximum Design Pressure: -60 psf. (See General Limitation #7)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33, Type B steel deck attached to structural supports spaced a maximum 6-ft o.c. with 5/8" diameter puddle welds.

System Type D(6): One or more layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with JM High Load Screws & APB Plates spaced 6" o.c. within in the center of the 4" heat welded side laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -60 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33, Type B steel deck attached to structural supports spaced a maximum 6-ft o.c. with 5/8" diameter puddle welds.

System Type D(7): One or more layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with JM High Load LH fastener 6" o.c. along the Polymer Membrane Batten placed within the center of every other 4" heat welded side lap for a maximum distance between rows of 71" o.c.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -60 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga., Grade 33, Type B steel deck attached to structural supports spaced a maximum 6-ft o.c. with 5/8" diameter puddle welds.

System Type D(8): One or more layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with JM High Load Fasteners and High Load Plates spaced 12" o.c. within the 4" heat welded side laps.

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -60 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Min. 22 ga. B-Deck attached with #12-24 x 1-1/4" HWH self-drilling screws at each flute having max 6ft span. Laps stitched with 1/4"-14 x 7/8" HWH self-drilling screws at 24" o.c.

System Type D(9): One or more layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of DynaFast 180 S mechanically fastened through the insulation with JM High Load Fasteners and High Load Plates spaced 6" o.c. within the every other 4" heat welded side laps for a maximum distance between rows of 70".

Membrane: JM PVC Fleece Backed applied with approved mopping asphalt at an application rate of 20-40 lbs./sq. with min. 1.5" heat welded side laps.

Maximum Design Pressure: -52.5 psf. (See General Limitation #9.)

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf. As tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 12-1113.23
Expiration Date: 12/06/17
Approval Date: 07/03/14
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